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<u>L1</u>	information near query	3015	<u>L1</u>

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1. Document ID: US 5572449 A

L55: Entry 1 of 1

File: USPT

Nov 5, 1996

US-PAT-NO: 5572449

DOCUMENT-IDENTIFIER: US 5572449 A

** See image for Certificate of Correction **

TITLE: Automatic vehicle following system

DATE-ISSUED: November 5, 1996

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Tang; Qing	Storrs	CT		
Wang; Wei-Ping	Storrs	CT		
Gan; Zhongxue	Storrs	CT		
Zhang; Ruiming	Storrs	CT		
Moh; John	Freshmeadows	NY		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
VI&T Group, Inc.	Freshmeadows	NY			02

APPL-NO: 08/ 245865 [PALM]

DATE FILED: May 19, 1994

INT-CL: [06] B60 T 7/16

US-CL-ISSUED: 364/565; 364/426.01, 364/424.01, 364/426.04, 180/271, 180/170, 340/903

US-CL-CURRENT: 700/304; 180/170, 180/271, 340/903, 701/70, 702/149

FIELD-OF-SEARCH: 364/424.01, 364/449, 364/426.01, 364/565, 364/566, 364/461, 364/426.04, 364/468, 364/424.05, 340/990, 340/992, 340/903, 340/904, 342/455, 123/349, 123/350

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
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<u>3952301</u>	April 1976	Sorkin	343/7VM
<u>4361202</u>	November 1982	Minovitch	180/168
<u>4621705</u>	November 1986	Etoh	180/169
<u>4622636</u>	November 1986	Tachibana	364/424
<u>4628317</u>	December 1986	Nishikawa et al.	340/903
<u>4703429</u>	October 1987	Sakata	364/426
<u>4706195</u>	November 1987	Yoshino et al.	364/426
<u>4791570</u>	December 1988	Sherman et al.	364/436
<u>4855822</u>	August 1989	Narendra et al.	358/103
<u>4893240</u>	January 1990	Karkouti	364/424.05
<u>4962457</u>	October 1990	Chen et al.	364/443
<u>5039217</u>	August 1991	Maekawa et al.	364/424.01
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<u>5053979</u>	October 1991	Etoh	364/565
<u>5058024</u>	October 1991	Inselberg	364/461
<u>5101198</u>	March 1992	Abou et al.	340/825.5
<u>5122961</u>	June 1992	Toyama et al.	364/424.01
<u>5124923</u>	June 1992	Takahashi	364/424.01
<u>5126735</u>	June 1992	Trevijano	340/902
<u>5159480</u>	October 1992	Gordon et al.	359/181
<u>5173859</u>	December 1992	Deering	364/424.01
<u>5222024</u>	June 1993	Orita et al.	364/468
<u>5223844</u>	June 1993	Mansell et al.	342/357
<u>5234071</u>	August 1993	Kajiwara	180/169
<u>5285523</u>	February 1994	Takahashi	364/424.01
<u>5311431</u>	May 1994	Cao et al.	364/424.05
<u>5331561</u>	July 1994	Barrett et al.	364/424.01
<u>5337236</u>	August 1994	Fogg et al.	364/424.04
<u>5369591</u>	November 1994	Broxmeyer	364/461

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Shladover et al., "Automatic Vehicle Control Developments in the PATH Program", IEEE, pp. 114-129, 1991.

"Automated Highway Studies at The Ohio State University--An Overview", IEEE Transactions On Vehicular Technology, vol. 40, No. 1, Feb. 1991, pp. 100-113.

"An Overview of Systems Studies of Automated Highway Systems", IEEE Transactions On Vehicular Technology, vol. 40, No. 1, Feb. 1991, pp. 82-99.

"Smart Cars on Smart Roads: Problems of Control", IEEE Transactions on Automatic Control, vol. 38, No. 2, Feb. 1993, pp. 195-207.

"Automatic Vehicle Control Developments in the Path Program", IEEE Transactions On Vehicular Technology, vol. 40, No. 1, Feb. 1991, pp. 114-129.

"Visual Control of an Autonomous Vehicle (BART)--The Vehicle-Following Problem", IEEE Transactions On Vehicular Technology, vol. 40, No. 3, Aug. 1991, pp. 654-662.

ART-UNIT: 234

PRIMARY-EXAMINER: Teska; Kevin J.

ASSISTANT-EXAMINER: Phan; Thai

ATTY-AGENT-FIRM: McCormick, Paulding & Huber

ABSTRACT:

An automatic vehicle following system is provided for controlling a following vehicle to maintain at least a predetermined distance behind a preceding vehicle and to substantially follow the path of the preceding vehicle. An on-line measurement system of the preceding vehicle generates signals indicative of the velocity (having speed and directional components) of the preceding vehicle, and a communication system transmits the velocity signals to the following vehicle. The following vehicle likewise has a communication system for receiving the signals from the preceding vehicle, and an on-line measurement system for providing signals indicative of the velocity of the following vehicle and signals indicative of the distance between the two vehicles. A signal processing system of the following vehicle is coupled to the communication system and on-line measurement system for estimating motion trajectory of the preceding vehicle based on the difference in the velocities of the preceding and following vehicles and the following distance. A control system generates control signals and takes action so as to perform speed control and maintain at least a predetermined safe following distance between the two vehicles, and steering control to substantially follow the path of the preceding vehicle.

26 Claims, 3 Drawing figures

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequence	Disposition	Claims	KWIC	Draw. Ds
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L4: Entry 7 of 7

File: USPT

Sep 7, 1999

US-PAT-NO: 5948040

DOCUMENT-IDENTIFIER: US 5948040 A

TITLE: Travel reservation information and planning system

DATE-ISSUED: September 7, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
DeLorme; David M.	Yarmouth	ME		
Gray; Keith A.	Dresden	ME		
Ferguson; T. Angus	Portland	ME		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
DeLorme Publishing Co.	Yarmouth	ME			02

APPL-NO: 08/ 797471 [PALM]

DATE FILED: February 6, 1997

PARENT-CASE:

CROSS-REFERENCE TO RELATED APPLICATIONS This patent application is a continuation-in-part (CIP) of the David M. DeLorme et al. U.S. patent application Ser. No. 08/661,600 filed Jun. 11, 1996, for COMPUTER AIDED ROUTING AND POSITIONING SYSTEM, now U.S. Pat. No. 5,802,492 which is a CIP of the David M. DeLorme et al. U.S. patent application Ser. No. 08/381,214 filed Jan. 31, 1995 for COMPUTER AIDED ROUTING SYSTEM, now U.S. Pat. No. 5,559,707, issued Sep. 24, 1996, which is a CIP of the David M. DeLorme et al. U.S. patent application Ser. No. 08/265,327 filed Jun. 24, 1994 for COMPUTER AIDED MAP LOCATION SYSTEM now abandoned. This patent application is also a CIP of the Keith A. Gray U.S. patent application Ser. No. 08/521,828 filed on Aug. 31, 1995, for COMPUTERIZED ADDRESS LOCATION AND COMMUNICATION SYSTEM now abandoned. All of the cross-referenced applications have a common assignee who is the assignee of the present application. The contents of these related patent applications are incorporated herein by reference.

INT-CL: [06] G06 F 19/00, G01 C 21/00

US-CL-ISSUED: 701/201; 701/208, 701/211, 340/990, 705/5

US-CL-CURRENT: 701/201; 340/990, 701/208, 701/211, 705/5

FIELD-OF-SEARCH: 701/201, 701/202, 701/207, 701/208, 701/209, 701/211, 701/212, 701/213, 705/5, 705/6, 340/988, 340/989, 340/990, 340/995

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

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<input type="checkbox"/> <u>4359631</u>	November 1982	Lockwood et al.	360/12
<input type="checkbox"/> <u>4862357</u>	August 1989	Ahlstrom et al.	705/6
<input type="checkbox"/> <u>4926336</u>	May 1990	Yamada	364/444
<input type="checkbox"/> <u>5021953</u>	June 1991	Webber et al.	705/6
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<input type="checkbox"/> <u>5359527</u>	October 1994	Takanabe et al.	364/449
<input type="checkbox"/> <u>5369588</u>	November 1994	Hayami et al.	701/209
<input type="checkbox"/> <u>5422809</u>	June 1995	Griffin et al.	705/5
<input type="checkbox"/> <u>5444618</u>	August 1995	Seki et al.	364/420
<input type="checkbox"/> <u>5519619</u>	May 1996	Seda	701/201
<input type="checkbox"/> <u>5537324</u>	July 1996	Nimura et al.	364/449
<input type="checkbox"/> <u>5587911</u>	December 1996	Asano et al.	364/444.2
<input type="checkbox"/> <u>5724520</u>	March 1998	Goheen	705/5

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Makulowich, John, "Traveling by Virtual Reservation," Washington Technology, Jan. 23, 1997, p. 42.

Knecht, Bruce, G., "Microsoft Puts Newspapers in Highanxiety.com," The Wall Street Journal, Jul. 15, 1996, pp. B1, B10.

"InforTravel Expands Service," Business Geographics, vol. 4, No. 6, Jun., 1996, p. 13.

DelRosso, Laura, "Firm Customizes Internet Res Link," Travel Weekly, vol. 55, No. 26, Apr. 1, 1996, pp. 43-44, 47.

"Casto Travel's Resource Library," www.casto.com.

"Sunnyside Computing, Inc.," www.itn.net.

ART-UNIT: 361

PRIMARY-EXAMINER: Nguyen; Tan

ATTY-AGENT-FIRM: Atwood; Pierce Caseiro; Chris A.

ABSTRACT:

Computerized travel reservation information and planning system that generates "map ticket" output in various media, for guidance and transactions en route. Such print or electronic documents can include bar or alphanumeric codes for automated recognition and/or access. WHERE?, WHO/WHAT?, WHEN? and HOW? menus enable flexible user inquiries accessing selectable geographic, topical, temporal and transactional data records and relational processing. Sub-menus provide further capabilities: e.g. routing, topical searching; searches of events calendars, almanacs, appointment books, related itinerary scheduling; trip budgeting issues, plus travel arrangement availabilities or other goods/services offers. Online communications links access updated or supplemental information on places, times, topics and other provider goods/service offers. Online computer-aided routing system enables input of selectable travel origin, destination, and waypoints to compute travel routes, available transportation services, costs, options, and schedules. A point-of-interest database lets users pick types of attractions or accommodations within a user-selected region around routes of travel. Users engage in an iterative planning process, revising or editing travel plans, previewing travelogs of alternate routes, selecting point of interest parameters, comparing times and costs of transportation options, in order to achieve a satisfactory travel plan. The system provides printed or electronic output that may include any one or more of text itinerary, ordered set of travel maps, customized collection of information on points of interest information and a selected array of valid reservation confirmations, tickets and/or discount coupons coded with elements for automated recognition and processing. Mobile users, including GPS-linked users, can access the system via wireless communication units.

80 Claims, 16 Drawing figures

First Hit Fwd Refs

L14: Entry 56 of 62

File: USPT

May 26, 1998

US-PAT-NO: 5758281

DOCUMENT-IDENTIFIER: US 5758281 A

TITLE: Personal communications service using wireline/wireless integration

DATE-ISSUED: May 26, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Emery; Mark J.	Herndon	VA		
Tucker; Brenda N.	Mitchellville	MD		
Schwartz; Laurie D.	Garrett Park	MD		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE	CODE
Bell Atlantic Network Services, Inc.	Arlington	VA				02

APPL-NO: 08/ 471037 [PALM]

DATE FILED: June 6, 1995

PARENT-CASE:

This application is a continuation of U.S. application Ser. No. 08/229,891, filed Apr. 19, 1994, pending, which is a division of U.S. application Ser. No. 07/845,924, filed Mar. 5, 1992, now U.S. Pat. No. 5,353,331. TECHNICAL FIELD The present invention relates to a personal communication service allowing a user to send and receive calls from a single portable handset using a single assigned number whether at home or roaming. The present invention provides method and system structures for interfacing the capabilities of a land line telephone system with a radio link communication system, using a land line Advanced Intelligent Network (AIN). In particular, the new system would control the provision of private network service features to users of both radio link systems and land line systems to provide unbroken, or seamless, access to a variety of different types of communications systems linked to the inventive system. Acronyms The written description uses a large number of acronyms to refer to various services and system components. Although known, use of several of these acronyms is not strictly standardized in the art. For purposes of this discussion, acronyms therefore will be defined as follows: Action Control Point (ACP) Advanced Intelligent Network (AIN) Advanced Services Platform (ASP) Authentication Center (AC) Base Station (BS) Cellular Subscriber Station (CSS) Common Channel Inter-office Signalling (CCIS) Dual Tone Multifrequency (DTMF) Data and Reporting System (D&RS) Equipment Identity Register (EIR) Home Location Register (HLR) Integrated Service Control Point (ISCP) Intelligent Peripheral (IP) Local Access and Transport Area (LATA) Low-Power Self Contained Cell (LPSC) Mobile Identification Number (MIN) Mobility Controller (MC) Mobile Switching Center (MSC) Mobile Telephone Switching Office (MTSO) Overhead Message Train (OMT) Personal Base Station (PBS) Personal Communication Service (PCS) Plain Old Telephone Service (POTS) Private Branch Exchange (PBX) Private Automatic Branch Exchange (PABX) Public Switched Telephone Network (PSTN) Service Control Point (SCP) Service Management System (SMS) Service Switching Point (SSP)

Signalling Transfer Point (STP) Station Message Detail Recording (SMDR) Service Creation Environment (SCE) Telephone Company (TELCO) Temporary Local Directory Number (TLDN) Transaction Capabilities Applications Protocol (TCAP) Visitor Location Register (VLR) Wireless Private Branch Exchange (WPBX)

INT-CL: [06] H04 M 11/00, H04 M 15/00, H04 M 3/42, H04 M 7/00

US-CL-ISSUED: 455/428; 455/433, 455/435, 379/115, 379/207, 379/220, 379/229
US-CL-CURRENT: 455/428; 379/114.28, 379/221.02, 379/221.08, 379/229, 379/230,
455/433, 455/435.1

FIELD-OF-SEARCH: 379/58, 379/59, 379/60, 379/61, 379/62, 379/207, 379/219, 379/220,
379/229, 379/230, 379/111, 379/112, 379/113, 379/114, 379/115, 455/33.1, 455/33.2,
455/54.1, 455/422, 455/428, 455/433, 455/435, 455/445, 455/517, 455/560, 455/561

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
<input type="checkbox"/> <u>4178476</u>	December 1979	Frost	
<input type="checkbox"/> <u>4191860</u>	March 1980	Weber	
<input type="checkbox"/> <u>4313035</u>	January 1982	Jordan et al.	
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<input type="checkbox"/>	<u>5067147</u>	November 1991	Lee	
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<input type="checkbox"/>	<u>5090051</u>	February 1992	Muppidi et al.	
<input type="checkbox"/>	<u>5097499</u>	March 1992	Cosentino	379/59
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<input type="checkbox"/>	<u>5117450</u>	May 1992	Joglekar	
<input type="checkbox"/>	<u>5117502</u>	May 1992	Onoda et al.	
<input type="checkbox"/>	<u>5119482</u>	June 1992	Lloyd	
<input type="checkbox"/>	<u>5127042</u>	June 1992	Gillig et al.	
<input type="checkbox"/>	<u>5127100</u>	June 1992	D'Amico et al.	
<input type="checkbox"/>	<u>5136636</u>	August 1992	Wegrzynowicz	
<input type="checkbox"/>	<u>5142654</u>	August 1992	Sonberg et al.	
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<input type="checkbox"/>	<u>5259018</u>	November 1993	Grimmet et al.	
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<input type="checkbox"/>	<u>5301357</u>	April 1994	Thompson	379/59
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<input type="checkbox"/>	<u>5311575</u>	May 1994	Friedes et al.	
<input type="checkbox"/>	<u>5315636</u>	May 1994	Patel	
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<input type="checkbox"/>	<u>5353331</u>	October 1994	Emery et al.	379/58
<input type="checkbox"/>	<u>5361295</u>	November 1994	Solomon	379/211
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<input type="checkbox"/>	<u>5386467</u>	January 1995	Ahmad	
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<input type="checkbox"/>	<u>5430719</u>	July 1995	Weisser, Jr.	
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<input type="checkbox"/>	<u>5438568</u>	August 1995	Weisser, Jr.	
<input type="checkbox"/>	<u>5448632</u>	September 1995	Iyob et al.	
<input type="checkbox"/>	<u>5452350</u>	September 1995	Reynolds	
<input type="checkbox"/>	<u>5473679</u>	December 1995	La Porta	
<input type="checkbox"/>	<u>5481603</u>	January 1996	Gutierrez	
<input type="checkbox"/>	<u>5513250</u>	April 1996	McAllister	379/230

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ART-UNIT: 265

PRIMARY-EXAMINER: Kuntz; Curtis

ASSISTANT-EXAMINER: Shankar; Vijay

ATTY-AGENT-FIRM: Lowe, Price, LeBlanc & Becker

ABSTRACT:

The Advanced Intelligent Network (AIN) wireline system connects to and controls processing of calls to a Personal Communication Service subscriber's wireless handset via a home base station or a wireless communication network. Depending on its current location, the subscriber's handset automatically registers with the base station or with a mobility controller of the wireless network. A new registration with the base station when the handset comes within range causes that station to update the subscriber's home location register in a central data base of the AIN. Similarly, when a handset first registers with a mobility controller, that controller updates the subscriber's home location register in the central data base of the AIN. In response to calls directed to the subscriber, the AIN accesses the home location register to determine the current location where the handset is registered. The AIN then uses that data to route the call to the current location. In response to calls from the handset, the central data base provides instruction data to the land line network and/or a mobility controller to extend a requested special service to the calling subscriber.

24 Claims, 9 Drawing figures